Appln. No. 10712,184   Attorney Docket No. 10541-1740

I.   Amendments to the Claims

        1.   (Cancelled)

        2.   (Currently Amended)   The system according to claim ~~1~~ 5,
wherein the electronic flow control device is a valve.

        3.   (Currently Amended)   The system according to claim ~~1~~ 5,
wherein the electronic control unit controls the electronic flow control device to
reduce fluid flow based on a vehicle speed.

        4.   (Currently Amended)   The system according to claim ~~1~~ 5,
wherein the electronic control unit controls the electronic flow control device to
reduce fluid flow based on a steering wheel rate.

        5.   (Currently Amended)   ~~The system according to claim 1,~~ A
system for controlling a vehicle steering system comprising:

                a power steering pump;

                an electronic flow control device coupled to the power steering
pump; and

                an electronic control unit configured to control the electronic flow
control device such that hydraulic parasitic losses are minimized wherein the
electronic control unit is configured to monitor actual electronic flow control

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<u>device current and generate a final control signal based on a desired electronic</u>

<u>flow control device current and the actual electronic flow control device current</u>

wherein the electronic control unit is configured to monitor actual electronic flow

control device current and generate a final control signal based on a desired

electronic flow control device current and the actual electronic flow control device

current.

6. (Currently Amended) The system according to claim 4 5, wherein the electronic control unit is configured to calculate a desired steering assist for the electronic flow control device by interpolating values from a two dimensional lookup table.

7. (Currently Amended) The system according to claim 4 5, wherein the electronic control unit is configured to control the electronic flow control device based on a driver operational selection signal.

8. (Currently Amended) The system according to claim 4 5, wherein the electronic control unit is configured to control the electronic flow control device based on a steering assist override information.

9. (Currently Amended) The system according to claim 4 5, wherein the electronic control unit is configured to control the electronic flow control device using a variable loop time.

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10.   (Currently Amended)   The system according to claim 9, wherein the variable loop times~~are~~ is shortened when the electronic control unit senses increasing steering wheel rates.

11.   (Currently Amended)   The system according to claim ~~4~~ 5, wherein the electronic control unit is configured to control the electronic flow control device based on a vehicle acceleration.

12.   (Currently Amended)   The system according to claim ~~4~~ 5, wherein the electronic control unit is configured to control the electronic flow control device based on ~~the~~ a steering wheel rate and residual steering forces.

13.   (Currently Amended)   The system according to claim ~~4~~ 5, wherein the electronic control unit is configured to control the electronic flow control device using a dead band for small steering wheel rates.

14.   (Currently Amended)   The system according to claim ~~4~~ 5 wherein the electronic control unit is configured to control the electronic flow control device using information about a lock stop position of the vehicle steering system.

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15.   (Currently Amended)   The system according to claim 4 5, wherein the electronic control unit is configured to control the electronic flow control device based on the an engine speed.

16.   (Currently Amended)   The system according to claim 4 5, wherein the electronic control unit is configured to control the electronic flow control device compensating for hysteresis in the electronic flow control device.

17.   (Currently Amended)   The system according to claim 4 5, wherein the a vehicle input signal information is directly digitized by the electronic control unit.

18.   (Original)   The system according to claim 17, wherein a digitizing period is matched to a refresh period of the vehicle input signal information.

19.   (Currently Amended)   The system according to claim 4 5, wherein the electronic control unit is configured to control the desired electronic flow control device using variable values normalized for the physical range of each variable.

20.   (Cancelled)

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21.   (Currently Amended)   The method according to claim ~~20~~ 29, wherein the electronic control unit controls the electronic flow control device to reduce fluid flow based on a vehicle speed.

22.   (Currently Amended)   The method according to claim ~~20~~ 29, wherein the electronic control unit controls the electronic flow control device to reduce fluid flow based on a steering wheel rate.

23.   (Currently Amended)   The method of claim ~~20~~ 29, further comprising:

monitoring actual electronic flow control device current;

generating a final control signal as a function of ~~the~~ a calculated desired electronic flow control device current and ~~the~~ an actual electronic flow control device current.

24.   (Currently Amended)   The method of claim ~~20~~ 29, wherein the calculation of the desired steering assist includes interpolating values from a two dimensional lookup table.

25.   (Currently Amended)   The method of claim ~~20~~ 29, wherein the calculation of the desired steering assist is calculated evaluating a driver operational selection signal.

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26.   (Currently Amended)   The method of claim 2̶0̶ 29, wherein the calculation of the desired steering assist is based on override information.

27.   (Currently Amended)   The method of claim 2̶0̶ 29, wherein calculating the desired steering assist includes using a variable loop time.

28.   (Currently Amended)   The method of claim 2̶0̶ 29, wherein calculating the desired steering assist is based on vehicle acceleration.

29.   (Currently Amended)   T̶h̶e̶ ̶m̶e̶t̶h̶o̶d̶ ̶o̶f̶ ̶c̶l̶a̶i̶m̶ ̶2̶0̶, A method for controlling a vehicle steering system comprising:

monitoring vehicle input signal information;

calculating a desired steering assist based on the vehicle input signal information;

controlling an electronic flow control device based on the desired steering assist; and

generating the desired steering assist demand such that hydraulic parasitic losses are minimized in the steering system wherein calculating the desired steering assist includes calculating a compensation factor for vehicle cornering situations.

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30. (Currently Amended)   The method of claim 2̶0̶ 29, wherein calculating the desired steering assist is calculated using a dead-band for small steering wheel rates.

31. (Currently Amended)   The method of claim 2̶0̶ 29, wherein calculating the desired steering assist is calculated using information about a lock stop position of the vehicle steering system.

32. (Currently Amended)   The method of claim 2̶0̶ 29, wherein calculating the desired steering assist is based on information about engine speed.

33. (Currently Amended)   The method of claim 2̶0̶ 29, wherein calculating the desired steering assist includes compensating for hysteresis in the electronic flow control device.

34. (Currently Amended)   The method of claim 2̶0̶ 29, wherein the calculation of the desired steering assist is calculated using variable values normalized for the physical range of each variable.

35. (Currently Amended)   The method of claim 2̶0̶ 29, wherein vehicle input signal information is directly digitized.

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36.   (Original)   The method of claim 35, wherein a digitizing period is matched to a reference period of the vehicle input signal information.

37.   (New)   A system for controlling a vehicle steering system comprising:

a power steering pump;

an electronic flow control device coupled to the power steering pump; and

an electronic control unit configured to control the electronic flow control device such that hydraulic parasitic losses are minimized, wherein the electronic control unit is configured to control the electronic flow control device using a variable loop time; and

the variable loop time is shortened when the electronic control unit senses increasing steering wheel rates.

38.   (New)   A system for controlling a vehicle steering system comprising:

a power steering pump;

an electronic flow control device coupled to the power steering pump; and

an electronic control unit configured to control the electronic flow control device such that hydraulic parasitic losses are minimized, wherein the electronic

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control unit is configured to control the electronic flow control device based on a steering wheel rate and residual steering forces.

39.   (New)   A system for controlling a vehicle steering system comprising:

a power steering pump;

an electronic flow control device coupled to the power steering pump; and

an electronic control unit configured to control the electronic flow control device such that hydraulic parasitic losses are minimized, wherein the electronic control unit is configured to calculate a desired steering assist for the electronic flow control device by interpolating values from a two dimensional lookup table.

40.   (New)   A system for controlling a vehicle steering system comprising:

a power steering pump;

an electronic flow control device coupled to the power steering pump; and

an electronic control unit configured to control the electronic flow control device such that hydraulic parasitic losses are minimized, wherein the electronic control unit is configured to control the electronic flow control device using information about a lock stop position of the vehicle steering system.

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41.   (New)   A system for controlling a vehicle steering system comprising:

a power steering pump;

an electronic flow control device coupled to the power steering pump; and

an electronic control unit configured to control the electronic flow control device such that hydraulic parasitic losses are minimized, wherein the electronic control unit is configured to control the electronic flow control device compensating for hysteresis in the electronic flow control device.

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